

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Brian S. HILTON et al.

Group Art Unit: 2861

Application No.: 10/629,606

Examiner: L. NGUYEN

Filed: July 30, 2003

Docket No.: 115849

For: DEVICES FOR DISSIPATING HEAT IN A FLUID EJECTOR HEAD AND
METHODS FOR MAKING SUCH DEVICES

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the January 10, 2006 Office Action, reconsideration of the application is respectfully requested in light of the following remarks.

Claims 1-19 are pending in this application. The Office Action does not mention claims 14-19, which are still pending in this application, and merely withdrawn from consideration as drawn to a non-elected invention. In a Request for Reconsideration, filed on October 11, 2005, Applicants argued "non-elected method (process) claim 14 includes all of the limitations of claim 1. As such, under MPEP §821.04, claims 14-19 must be rejoined and allowed when claim 1 is allowed." Applicants maintain this position in this response. This argument is not addressed in the current Office Action. Applicants respectfully request rejoinder and allowance of claims 14-19, or in any next communication to issue from the Patent Office regarding this application, Applicants respectfully request that the above argument regarding rejoinder and allowance the claims be specifically addressed.

The Office Action, on page 3, again indicates that claims 2, 12 and 13 recite allowable subject matter. Specifically, the Office Action indicates that claims 2, 12 and 13 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims. Applicants appreciate this indication of allowability but respectfully submit that at least independent claim 1, from which these claims directly or indirectly depend, is allowable for at least the reasons indicated below.

The Office Action, on page 2, rejects claims 1 and 8 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,801,727 to Torpey. The Office Action, on page 3, rejects claims 3-7 and 9-12 under 35 U.S.C. §103(a) as being unpatentable over Torpey. These rejections are respectfully traversed.

Torpey teaches a wide array ink jet printhead for use in an ink jet printing device (Abstract). The Office Action, on page 2, alleges that Torpey teaches a manifold such as that recited in independent claim 1. Specifically, the Office Action indicates that Fig. 1, and specifically element 16 is alleged to correspond to the manifold recited in the pending claims. Further, nozzle module 18 attached to chamber 16 is alleged to correspond to a fluid ejector die module such as is recited in at least independent claim 1. This analysis fails for the following reasons.

Torpey teaches an ink jet instrument unit 10 comprised of an elongated plastic or ceramic chamber unit 16, a plastic or ceramic multiple nozzle unit 18 attached to the front of the chamber unit 16, and a plastic or ceramic manifold reservoir unit 19, containing ink 21, attached to the rear of the chamber unit 16 (see Fig. 2). The chamber 16 that is made of either plastic or ceramic is clearly not molded from a polymer that includes at least one thermally conductive filler material. The Office Action addresses this in asserting that "the limitation of a molded manifold does not render patentable weight since this is an apparatus claim, therefore it does not matter how the apparatus was made or manufactured. In brief, that

molded limitation does not have any structure." Separating the language of the feature of the manifold positively recited in claim 1 in this manner does not render the features positively recited in claim 1 a nullity as the Office Action attempts.

Claim 1 recites, among other features, a manifold that is molded from a polymer that includes at least one thermally conductive filler material. While no patentable weight may be given to the term "molded," patentable weight must be given to the feature that the manifold is molded "from a polymer that includes at least one thermally conductive filler material." Attempting to read this positively recited claim feature out of the claim, or construing the claim in such a manner as to vitiate this positively recited claim feature, is improper. The Office Action indicates that the manifold may not be patentably limited by the term molded. While Applicants do not concede this conclusion, the claims must be read in light of the positively recited claim feature a manifold that is molded from a polymer that includes at least one thermally conductive filler material.

Further, element 18 in Torpey cannot reasonably be considered to correspond to a fluid ejector die module when the reference simply refers to element 18 as a multiple nozzle unit attached to the front of the chamber unit 16. A fluid ejector die module is understood by those of ordinary skill in the art, and is disclosed in at least paragraphs [0055] - [0056], [0059] - [0060], and [0063] - [0064] as comprising at least a heating element substrate having a heating element formed on the heating element substrate, the heating element substrate being attached to a liquid path substrate to provide fluid a channel, and a fluid outlet. In operation, this fluid ejector die module has fluid supplied from a reservoir distributed to each of the channels and a pressure of bubbles developed in the channels by the heating element heating the fluid in the channel ejects liquid drops from the outlet onto a receiving medium (See, e.g., paragraph [0056]). Element 18, nor any combination of elements described or disclosed in Torpey, cannot reasonably be considered to teach, or to have suggested a fluid

ejector die module attached to the manifold as is recited, among other features, in independent claim 1.

Independent claim 1 recites a fluid ejector cartridge, comprising: a manifold that is molded from a polymer that includes at least one thermally conductive filler material; and a fluid ejector die module attached to the manifold. In fashioning a manifold from a polymer that includes at least one thermally conductive filler material, heat is dissipated from the fluid ejector die module attached to the manifold through the thermally conductive capacity of the manifold molded from the polymer. As discussed above, the ceramic manifold of Torpey cannot reasonably be considered to anticipate the polymer manifold that is the subject matter of the pending claims.

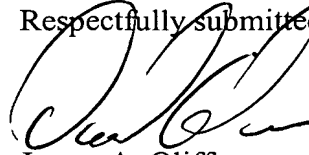
For at least the above reasons, Torpey does not disclose, nor can it reasonably be considered to have suggested, the combination of all of the features recited in at least independent claim 1. Additionally, claims 3-11 are also neither anticipated, nor would they have been suggested, by Torpey for at least the respective dependence of these claims directly or indirectly on independent claim 1, as well as for the separately patentable subject matter which each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejections of claims 1 and 3-11 under 35 U.S.C. §§102(b) and 103(a) as being anticipated by, or unpatentable over, Torpey are respectfully requested.

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 3-11 and 14-19, in addition to the allowable subject matter of claims 2, 12 and 13, are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted,



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